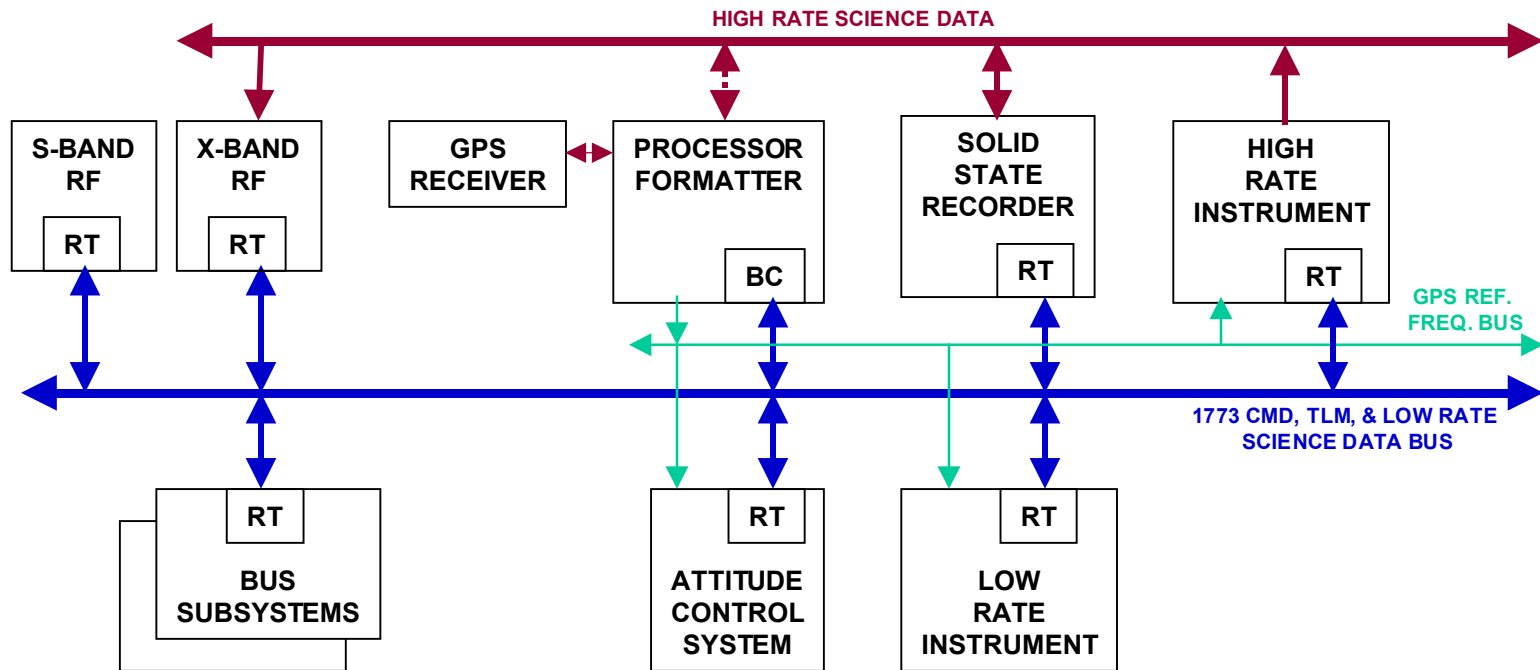# Alert Message Communications

- **Deviation from RSDO Catalog Impacts Cost and Schedule**

- **Original 5 Second to Internet Requirement is High Risk**
  - Change to 7 Seconds Should be Reasonable

- **1 ms C&DH Processing Requirement Breaks Vendors Design - $,$$$,$$$.$$**
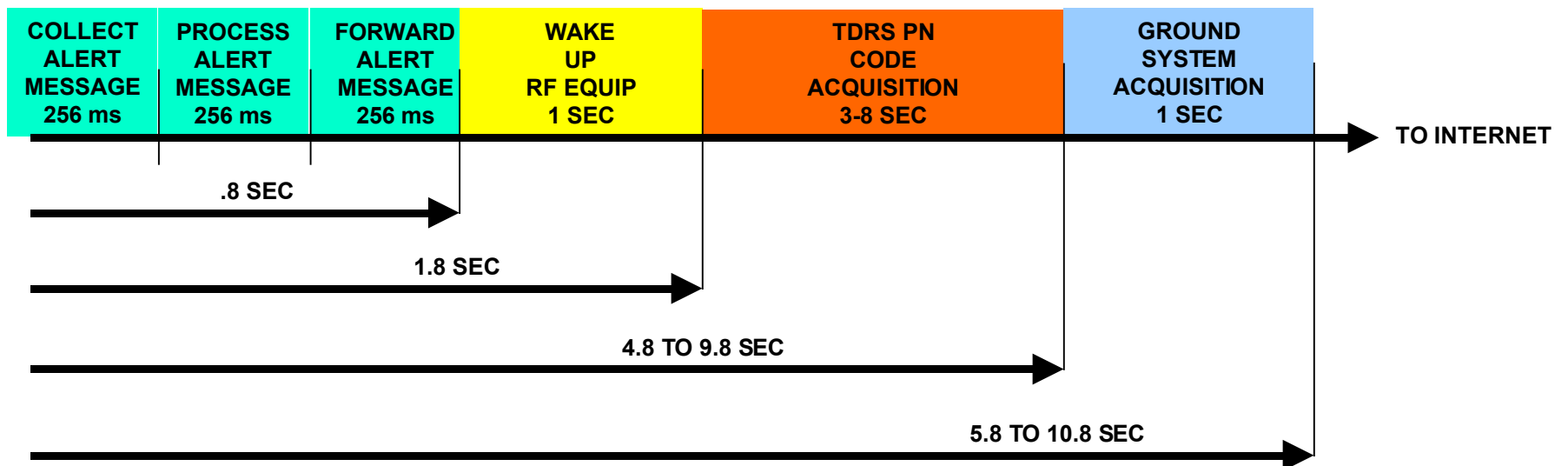
- **On-Board Bus Architecture can Improve Response Time**

Response Time Constraints

Alert Message Communications

HIGH RATE SCIENCE DATA

S-BAND RF	X-BAND RF	GPS RECEIVER	PROCESSOR FORMATTER	SOLID STATE RECORDER	HIGH RATE INSTRUMENT
RT	RT		BC	RT	RT

GPS REF. FREQ. BUS

1773 CMD, TLM, & LOW RATE SCIENCE DATA BUS

RT		RT	RT
BUS SUBSYSTEMS		ATTITUDE CONTROL SYSTEM	LOW RATE INSTRUMENT

BASELINE GLAST C&DH

Alert Message Communications

| COLLECT ALERT MESSAGE 256 ms | PROCESS ALERT MESSAGE 256 ms | FORWARD ALERT MESSAGE 256 ms | WAKE UP RF EQUIP 1 SEC | TDRS PN CODE ACQUISITION 3-8 SEC | GROUND SYSTEM ACQUISITION 1 SEC |

TO INTERNET

.8 SEC

1.8 SEC

4.8 TO 9.8 SEC

5.8 TO 10.8 SEC

TIMELINE

Alert Message Communications

HIGH RATE SCIENCE DATA

| S-BAND RF | X-BAND RF | GPS RECEIVER | PROCESSOR FORMATTER | SOLID STATE RECORDER | LAT |

RT RT BC RT

GPS REF. FREQ. BUS

1553 CMD& TLM DATA BUS

RT

BUS SUBSYSTEMS

RT

ATTITUDE CONTROL SYSTEM
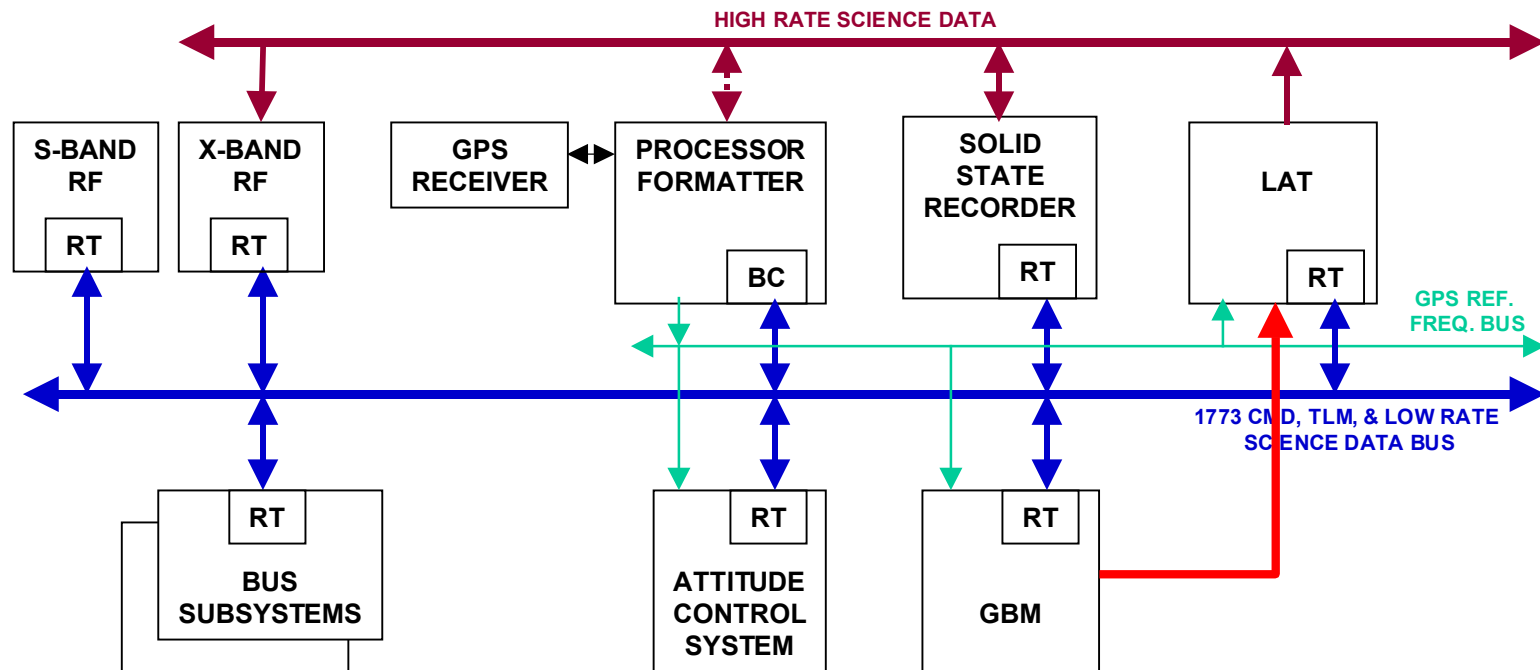
GBM
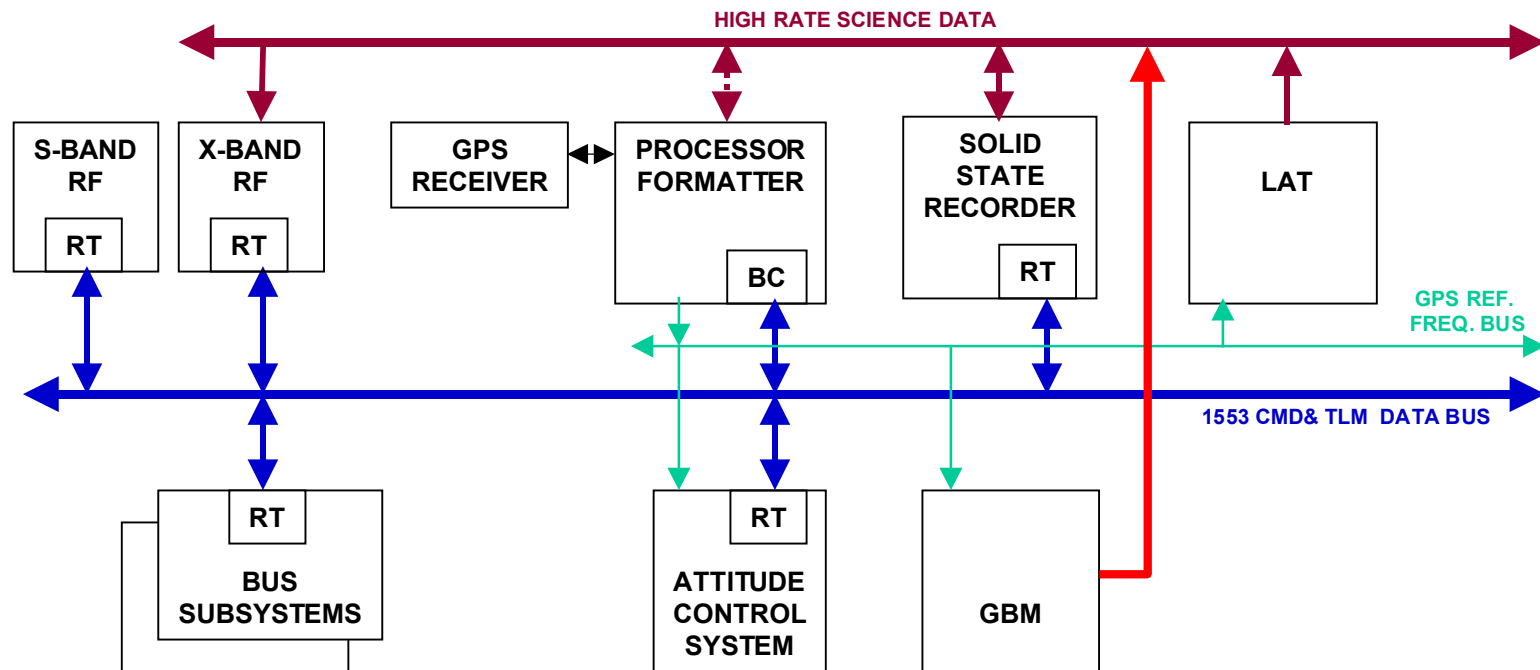
LAT and GBM on HIGH RATE BUS

Alert Message Communications

DIRECT CONNECT GBM to LAT